Results: On August 31, 1996, the last of 31 Syst-China centers stopped its activities. At median follow-up (2.8 years) active treatment decreased BP ($P < 0.001$) by 8.2/2.8 mmHg (95% CI: 7.4–9.0/2.0–3.6 mmHg). The stroke rate in placebo group was 28 per 1000 patient-years. Preliminary analyses according to an intention-to-treat principle and based on the events as reported by investigators, showed that the primary endpoint of the trial in terms of stroke reduction (−37%, $P = 0.006$) had been reached.

Conclusion: Pending validation of all endpoints by a blinded Endpoint Committee, the Syst-China trial demonstrated that antihypertensive treatment starting with nitrendipine decreases the cerebrovascular complications of isolated systolic hypertension in elderly Chinese patients.

1053-68 Lipoprotein (a) Does Not Correlate With Coronary Calcium Deposits in Postmenopausal Women

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Backgrounds: Lipoprotein (a) (Lp(a)) is considered a risk factor for coronary artery disease. Coronary calcium deposits are believed to be a useful non-invasive marker of coronary atherosclerosis. We studied the relationship of Lp(a) and other cardiac risk factors to coronary calcium on postmenopausal women at high risk for coronary atherosclerosis.

Methods: In 176 postmenopausal women (63 ± 8 years), we measured the Lp (a) and eight other variables: age, hypertension, diabetes score, physical activity (Mets-hour/week), smoking score (nil, ex >3 years, ex <3 years, current), body mass index, the use hormone replacement therapy (HRT), and atherogenic index (total cholesterol/HDL). Electron beam CT was done to measure coronary calcium (calcium score). We analyzed the relationship between calcium score and cardiac risk factors with multivariate analysis.

Results: We found that although calcium score correlated with traditional risk factors of age, diabetes, and smoking, it did not correlate with Lp(a) or physical activity.

Variables	p-value	Variables	p-value
Diabetes	0.0001	Atherogenic index	0.2881
Smoking	0.0008	Lp(a)	0.5316
Age	0.0245	HRT	0.6785
Hypertension	0.0954	Body mass index	0.8943
Physical activity	0.2540		

Conclusion: We conclude that in postmenopausal women neither Lp(a) nor atherogenic index correlates with coronary calcium deposits. Further investigation on the relationship between lipid levels and coronary calcification in postmenopausal women is warranted.

1053-69 Favorable Effect of Estrogen on Aortic Function In Postmenopausal Women Both With and Without Coronary Artery Disease

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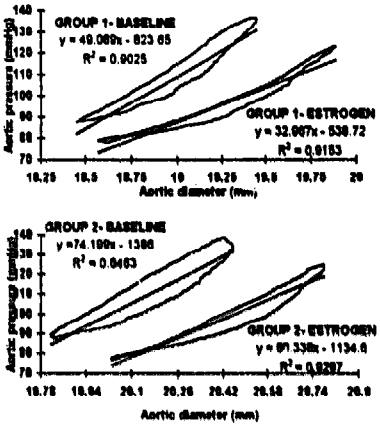
We hypothesized that estrogen may acutely alter aortic elastic properties.

Methods: Twenty postmenopausal women, ten without (group 1) and ten with (group 2) proven coronary artery disease received 10 μg of 17β-estradiol intravenously. Instantaneous aortic diameter (D) was measured by an intravascular catheter developed in our institution and previously validated. Instantaneous aortic pressure (P) was measured simultaneously at the same aortic level, with a catheter-tip micromanometer. Thus, aortic P-D loops were obtained. Aortic elastic properties were studied with the determination of aortic distensibility and the aortic stiffness constant (a calculated by fitting the P and the D data during the ventricular ejection phase to the exponential function $P = b.e^{aD}$, where b is the elastic constant) before and after estradiol and placebo administration. Furthermore, arterial wave reflections were studied from pressure wave-contour analysis using the augmentation index (pressure from inflection point to late systolic peak/pulse pressure).

Results: At baseline, elastic properties of the aorta were decreased in group 2 compared with group 1. Compared with baseline, aortic distensibility (in cm^2 dyn^{-1} 10^{-6}) was improved in both groups (group 1: from 1.7 ± 0.8 to 2.6 ± 0.9, $p < 0.01$ and group 2: from 1.0 ± 0.7 to 1.5 ± 0.5, $p < 0.05$) after estrogen administration, while a (in mm^{-1}) was reduced in both groups (group 1: from 0.4 ± 0.1 to 0.3 ± 0.1 and group 2: from 0.7 ± 0.1 to 0.6 ± 0.1, $p < 0.05$ for both). Furthermore, a significant reduction in wave reflection was found in both groups ($p < 0.001$). In contrast, no changes in aortic elasticity indexes were observed with placebo.

Conclusions: These results indicate that the acute administration of 17 β-estradiol improves the elastic properties in the aorta and dilates peripheral arteries. This action may contribute to the beneficial effects of estrogen on the cardiovascular system and have future therapeutic implications in postmenopausal women.



1053-70 Modifying Risk Factors in the Elderly

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"Life Style Modification Programs" have been advocated for the long-term management of patients with coronary artery disease (CAD). With aging of the population, many patients enrolling in them are likely to be >65 years. We evaluated the efficacy of such a program in modifying risk factors. 68 patients with CAD were admitted to the program, 30 <65 years and 38 >65 yr. There were 73% and 74% women in both groups. The program had several components: exercise, dietary and lipid management, education and stress reduction. Patients reported to the program 3 times/wk for 3 mo. and thereafter 2 times/wk for 3 mo. On other days, they were instructed to continue the program at home. The diet was vegetarian with 30 g fat/d (20 mg cholesterol (chol), 3 g sat. fat). In this diet 12% of the calories was provided by fat. Compliance with the program was assessed by 4 day food records. Lipid lowering drugs were unchanged. The changes in risk factors in the two groups over 6 mo. is given below.

Group		Wt lbs	B.P. mmHg	ETT Time min	VO_2Max ml/kg/min	TC mg%	LDL mg%
<65 yr	Initial	186	123/79	9.8	25.2	207	128
	Final	182*	124/76	11.5*	28.0*	192*	119*
>65 yr	Initial	163	127/74	8.2	22.3	199	124
	Final	157*	129/70	11.2*	25.6	175*	107*

*significantly different from initial values.

These findings demonstrate that lifestyle modification programs are equally effective in patients >65 yr as those <65 yr.

1054 QT Dispersion

Monday, March 30, 1998, Noon–2:00 p.m.
Georgia World Congress Center, West Exhibit Hall Level
Presentation Hour: 1:00 p.m.–2:00 p.m.

1054-89 Change of QT Dispersion Following PTCA In Angina Patients

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QT dispersion (QTd) represents the inhomogeneity of ventricular depolanzation and regarded as the predictor of ventricular arrhythmia in patients with coronary artery disease (CAD). This study investigates the short-term effect of PTCA on QTd in patients with CAD and no history of previous MI.

Methods: In 84 angina patients (65 men and 19 women, mean age of 58.3 ± 9.0 years) who underwent successful PTCA of single coronary artery, QTd and corrected QTd (c-QRd) were mesured at baseline, immediate, 1 day and 1 month after PTCA.

Results: PTCA was performed at LAD in 56, LCX in 12 and RCA in 16 patients. Mean ± SEM of QTd (c-QTd) at baseline, immediate (Immed.), 1 day and 1 month after PTCA were 51.3 ± 4.2 (50.7 ± 4.1), 54.2 ± 4.5 (52.8 ± 4.5), 47.7 ± 4.3 (48.5 ± 4.8) and 36.3 ± 4.5 (37.5 ± 4.6) msec, respectively.

MONDAY POSTER